

AMENDMENTS TO THE CLAIMS

Please add new claim 14, as follows.

Listing of Claims

1. (PREVIOUSLY PRESENTED) An apparatus for dispensing liquid material as an attenuated continuous stream, comprising:

a dispensing module including a liquid supply passage adapted to be in fluid communication with a supply of liquid material, and an air supply passage adapted to be in fluid communication with a source of pressurized air;

a nozzle operatively coupled to said dispensing module and comprising a liquid discharge passage in fluid communication with said liquid supply passage, and an air discharge passage in fluid communication with said air supply passage, said liquid discharge passage having a liquid discharge outlet for discharging the liquid material, said air discharge passage having an air outlet configured to direct the pressurized air generally toward the liquid material discharged from said liquid discharge outlet;

an air valve operatively coupled to said air discharge passage; and

a controller coupled with said air valve and operable to actuate said air valve in a manner that pulses the pressurized air discharging from said air outlet as the liquid material is discharged to move the liquid material discharging from said liquid discharge outlet in a desired pattern as the attenuated continuous stream.

2. (PREVIOUSLY PRESENTED) The apparatus of claim 1, wherein said controller controls the air valve to move the liquid material discharging from said liquid discharge outlet in an oscillating pattern.
3. (CANCELED)
4. (PREVIOUSLY PRESENTED) The apparatus of claim 1, wherein said controller controls said air valve such that the air discharged from said air outlet is pulsed at a rate of approximately 500 cycles per second to approximately 2000 cycles per second.
5. (PREVIOUSLY PRESENTED) The apparatus of claim 1, wherein said air valve includes an open position and a closed position, and said controller is configured to actuate said air valve between said open and closed positions.
6. (PREVIOUSLY PRESENTED) The apparatus of claim 1, wherein said air valve includes an open position, a closed position and an intermediate position between said open and closed positions and said controller is configured to actuate said air valve between one of said open and closed positions and said intermediate position.

7. (PREVIOUSLY PRESENTED) The apparatus of claim 1, further comprising:

a hot air manifold coupled to said dispensing module for heating the pressurized air supplied to said nozzle, said air valve positioned between the source of pressurized air and said nozzle.

8. (PREVIOUSLY PRESENTED) The apparatus of claim 7, wherein said hot air manifold comprises a flat heater operable to transfer heat to the air supplied to said nozzle.

9. (PREVIOUSLY PRESENTED) An apparatus for dispensing liquid material, comprising:

a dispensing module including a liquid supply passage adapted to be in fluid communication with a supply of liquid material, and an air supply passage adapted to be in fluid communication with a source of pressurized air;

a nozzle operatively coupled to said dispensing module and comprising first and second liquid discharge passages in fluid communication with said liquid supply passage, and an air discharge passage in fluid communication with said air supply passage, said first and second liquid discharge passages having respective first and second liquid discharge outlets for discharging the liquid material, said air discharge passage having an air outlet positioned between said first and second liquid discharge outlets and configured to direct the pressurized air generally toward the liquid material discharged from said first and second liquid discharge outlets;

an air valve operatively coupled to said air discharge passage, and

a controller coupled with said air valve and operable to actuate said air valve in a manner that varies the pressure of the pressurized air discharging from said air outlet as the liquid material is discharged to move the liquid material discharging from said liquid discharge outlets in desired patterns.

10. (PREVIOUSLY PRESENTED) A method of dispensing liquid material as an attenuated continuous stream from a nozzle having liquid discharge outlet and an air outlet, the method comprising:

dispensing liquid material from the liquid discharge outlet;

discharging a stream of pressurized air from the air outlet toward the dispensing liquid material; and

pulsing the pressurized air while dispensing the liquid material to cause the liquid material to move in a desired pattern as the attenuated continuous stream.

11. (PREVIOUSLY PRESENTED) The method of claim 10, further comprising:

pulsing the pressurized air to cause an oscillating pattern in the discharging liquid material.

12. (CANCELED)

13. (PREVIOUSLY PRESENTED) The method of claim 10, wherein pulsing the pressurized air further comprises pulsing the air at a rate of approximately 500 cycles per second to approximately 2000 cycles per second.

14. (NEW) A method of dispensing liquid material as an attenuated continuous stream from a nozzle having liquid discharge outlet and an air outlet, the method comprising:

dispensing liquid material from the liquid discharge outlet;

discharging a stream of pressurized air from the air outlet toward the dispensing liquid material; and

varying the pressure of the pressurized air while dispensing the liquid material to cause the liquid material to move in a desired pattern as the attenuated continuous stream.